

P a t e n t   C l a i m s

- 5   1.        Process for the manufacturing (1-1<sup>n</sup>) of textile material and for dividing them from the ribbon form (3-3<sup>n</sup>) into individual examples, **characterized in that** a label ribbon (3-3<sup>n</sup>) produced on a loom (2) is conveyed directly to a cutting unit (4), in that the label ribbon in question is  
10 clamped during the cutting phase, and in that a cutting device (5) is conveyed across (6,7) said label ribbon (3-3<sup>n</sup>), after which the labels (1-1<sup>n</sup>, 1A-1<sup>n</sup>A) that have been cut are so arranged as to be received in a collecting position for this purpose.
- 15   2.        Process in accordance with Patent Claim 1,  
**characterized in that** the label ribbon (3-3<sup>n</sup>) arriving from the loom (2) is conveyed to a subjacent support table (9).
3.        Process in accordance with one or other of the foregoing Patent Claims 1-2, **characterized in that** several  
20 label ribbons (3-3<sup>n</sup>) positioned side by side are conveyed forward, and in that they are cut together in a common operation by means of the cutting device (5).
4.        Process in accordance with Patent Claim 3,  
**characterized in that** the cutting device (5) is a laser-  
25 cutting device which is preferably a CO<sub>2</sub> laser cutter, and/or in that the laser beam is stationary generated and guided to the cutting head by mirror deflection.
5.        Process in accordance with one or other of the foregoing Patent Claims 1-4, **characterized in that** the label  
30 ribbon/ribbons (3-3<sup>n</sup>) in question are clamped by means of a roller (10), a wheel or a similar rolling instrument that can be rotated and braked.
6.        Process in accordance with one or other of the foregoing Patent Claims 1-5, **characterized in that** special

controlling or cutting marks can be produced in the loom on said ribbon, for instance coloured lines which are significant for the place at which the cutting device should operate, and in that the cutting apparatus, which can

5 comprise a scanning device for scanning said controlling or cutting marks, starts to initiate a cutting operation each time the scanning device detects a controlling or cutting mark.

7. Process in accordance with one or other of the  
10 foregoing Patent Claims 1-6, **characterized in that**, in conjunction with cutting of the ribbon (3), the label (1) is caused to be double-folded (1A, 1B) in a common operation for all cut labels (1-1<sup>n</sup>) situated across the width.

8. Process in accordance with Patent Claim 7,  
15 **characterized in that** a straight-edge extending across the running direction (12) of the ribbons (8-8<sup>n</sup>) is caused to be lowered into a gap formed in the support table (9).

9. Arrangement for the implementation of a process for manufacturing labels (1-1<sup>n</sup>) of textile material and for  
20 dividing them from ribbon form into individual examples in accordance with one of Patent Claims 1-8, **characterized in that** a ribbon (3-3<sup>n</sup>) for the labels (1-1<sup>n</sup>) manufactured in the loom (2) leads directly to a cutting device (4), in which said label ribbon (3-3<sup>n</sup>) is cut into individual labels (1-1<sup>n</sup>), in that there is a clamping instrument (10) to clamp the label ribbon (3-3<sup>n</sup>) during the cutting phase across (6, 7) its normal running direction (12), and in that a cutting device (5) is so arranged as to be conveyed across (6, 7) the running direction (12) of a label ribbon (3-3<sup>n</sup>) in question  
25 for cutting said label ribbon (3-3<sup>n</sup>) into individual (1-1<sup>n</sup>, 1A-1<sup>n</sup>A).

10. Arrangement in accordance with Patent Claim 8,  
**characterized in that** a table (9) or some similar support, extending from the loom (2) to the cutting unit (4), is so

arranged as to carry the intended number of label ribbons (3-3<sup>n</sup>) side by side, and in that a driving mechanism is so arranged as to convey said label ribbons (3-3<sup>n</sup>) to the cutting unit (4).

5 11. Arrangement in accordance with one or other of the foregoing Patent Claims 9-10, **characterized in that** the clamping instrument (10) consists of a roller, wheel or some similar instrument, which can be rotated, driven and braked and is so arranged as to be in close contact with the label  
10 ribbon (3-3<sup>n</sup>).

12. Arrangement in accordance with Patent Claim 10, **characterized in that** a continuous transverse clamping instrument (10) is so arranged as to bear simultaneously against several label ribbons positioned side by side.

15 13. Arrangement in accordance with one or other of the foregoing Patent Claims 9-12, **characterized in that** the cutting device (5) is constituted by a guiding runway rail (13) extending across the label ribbon/ribbons in question, and a laser-cutting knife guided by the same (5) that is so  
20 arranged as to be conveyed forward and back (6,7) along said guiding runway rail.

14. Arrangement in accordance with one or other of the foregoing Patent Claims 9-13, **characterized in that** the cutting device (5) is a laser-cutting device.

25 15. Arrangement in accordance with Patent Claim 14, **characterized in that** the laser-cutting device is a CO<sub>2</sub> laser cutter.

16. Arrangement in accordance with one or other of the foregoing Patent Claims 14-15, **characterized in that** the  
30 laser beam is stationary generated and guided to the cutting head by mirror deflection.

17. Arrangement in accordance with one or other of the foregoing Patent Claims 9-16, **characterized in that** the loom includes means for making special controlling or cutting

marks on the ribbon during the weaving process at the place at which the cutting device shall operate.

18. Arrangement in accordance with Patent Claim 17, **characterized in that** the cutting apparatus comprises a scanner for scanning said controlling of cutting marks.

19. Arrangement in accordance with Patent Claim 18, **characterized in that** the cutting apparatus comprises starting means to initiate a cutting operation each time the scanning device detects a controlling or cutting mark.

10 20. Arrangement in accordance with one or other of the foregoing Patent Claims 9-19, **characterized in that** said cutting device (4) is connected to the loom (2) via a connector (15), and in that impulses are sent via said connector (15) from the loom (2) to the laser cutting device  
15 (4) when the specified length is reached and cutting is to take place.

21. Arrangement in accordance with one or other of the foregoing Patent Claims 9-20, **characterized in that** the cutting device (4) is connected to the weaving loom (2) by means of a plug (15), and in that data in respect of the cutting intensity and synchronization of the cutting speed between the weaving machine control and the cutting device control is exchanged via this plug connection (15).

22. Arrangement in accordance with one or other of the foregoing Patent Claims 9-21, **characterized in that** the cut labels are systematically arranged in a packaging unit immediately following the cutting procedure.

23. Arrangement in accordance with one or other of the foregoing Patent Claims 9-22, **characterized in that** a straight-edge (50) extending across the support table (9) is capable of being caused to move down into matching gaps (51) extending across the running direction (12) of the label ribbons (3) for the purpose of the double-folding (1A, 1B) of cut labels (1-1<sup>n</sup>) and pushing them through the gap (51).

24. Arrangement in accordance with Patent Claim 23,  
**characterized in** that the gap (51) extends all the way across  
the support table (9).